

**REMARKS**

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1 and 3-26 are pending in this application. Claims 1, 3-5, 12, 14-22 and 24-25 are amended and claim 2 has been cancelled. Claim 26 has been newly added. Claims 1, 4, 8 and 10 are the independent claims.

Applicants note with appreciation the Examiner's acknowledgement that certified copies of all priority documents have been received by the U.S.P.T.O. Action, summary at 12.

Applicants also respectfully note the present action indicates that the drawings have been accepted by the Examiner. Action, summary at 10.

**IDS Material**

Applicants note that there are references from the IDS filed March 8, 2005 and the revised PTO-1449 form submitted June 8, 2005 that have not been considered. The Examiner states that the references have not been considered because copies of the documents were not provided. Applicants believe that the references were submitted with the IDS when it was originally filed on March 8, 2007. As a courtesy, Applicants resubmit the IDS references for consideration.

**New Claims**

By the present Amendment, Applicants submit that claim 26 has been added. Support for claim 26 can be found in at least in the Specification as originally filed. In particular, support for claim 26 can be found at least on page 16, lines 4-15.

**Rejections under 35 U.S.C. § 112**

**Second Paragraph**

Claims 1-7, 12-17, 19-22 and 24-25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection for the reasons detailed below.

By the present Amendment, Applicants submit that claims 1-7, 12-17, 19-22 and 24-25 have been amended to clarify the limitations identified by the Examiner. Namely, the terminology recited in claim 1 (which the Examiner believes is indefinite) has been cancelled and the formula in original claim 2 has been added to claim 1. Further, amended claim 4 should now further clarify what formula (3) represents. Amended claim 12 now specifies the structure of the amine compound.

In regards to claims 12 and 13, the terms “protected by a protecting group”, “condensation reaction: and “deprotecting” in claim 12 are fully described in “Example 1: Synthesis of a linker compound” of the specification. Further, the “reductive amination reaction” of claim 13 is fully described in “Example 2: Synthesis of a ligand” of the specification. Applicants respectfully submit that the above terms are made clear to a person skilled in the art by the descriptions alone and that the current description is sufficient.

Amended claims 14, 15, 19 and 22 have been amended to recite the term “support”. Further, claims 14, 18 and 22 have been amended to further clarify the reaction steps for introducing sugar molecules. Amended claims 16-17, 20-21 and 24-25 have been amended to recite that the support is used as the ligand carrier for plasmon resonance measurement and the support is also used for affinity chromatography.

The Applicants, therefore, respectfully request that the rejection to Claims 1-7, 12-17, 19-22 and 24-25 under 35 U.S.C. § 112, second paragraph, be withdrawn.

First Paragraph

Claims 1-5 and 13-17 stand rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for hydrocarbon derivative chain comprising C-C bond, C-N bond, CO-NH bond and an aromatic amino group, allegedly does not reasonably provide enablement for all hydrocarbon derivative chains represented by the bond as defined in the specification (page 5, lines 2-8). Applicants respectfully traverse this rejection for the reasons detailed below.

By the present Amendment, Applicants submit that claims 1-5 and 13-17 have been amended to clarify the limitations identified by the Examiner.

The Applicants, therefore, respectfully request that the rejection to Claims 1-5 and 13-17 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejections under 35 U.S.C. § 101

Claims 16-17, 20-21, 24 and 25 is rejected under 35 U.S.C. § 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process.

Amended claims 16-17, 20-21 and 24-25 have been amended to recite that the support is used as the ligand carrier for plasmon resonance measurement and the support is also used for affinity chromatography.

The Applicants, therefore, respectfully request that the rejection to Claims 16-17, 20-21, 24 and 25 under 35 U.S.C. § 101, first paragraph, be withdrawn.

**Rejections under 35 U.S.C. § 103**

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayashi et al. (Tentative Lecture Proceeding, Chemical Society of Japan 2001) in view of Sumida et al. (JP 2002-80488 A) and Tomalia et al. (US 5,714,166) and further in view of Nelson et al. (US 6,756,345 B2). Applicants respectfully traverse this rejection for the reasons detailed below.

Claim 2 has been cancelled and so the rejection of claim 2 is now moot.

Hayashi, Sumida, Tomalia and Nelson, as relied upon by the Examiner, fail to render obvious the linker compounds and ligands as recited in amended, independent claims 1, 4, 8 and 10. With respect to the proposed combination of Hayashi, Sumida, Tomalia and Nelson, Applicants respectfully submit that the combination is improper for at least the following reasons.

Applicants respectfully submit that an attempt to bring in the ligand having oligosaccharide/phenylene diamine complex compound of Sumida, the method of producing targeted dendrimer conjugates of Tomalia, and the ligand comprising dithiolane group of Nelson into the linker compound of Hayashi would amount to improperly picking and choosing from the different references without regard for the teachings of the references as a whole.<sup>1</sup>

Further, Applicants respectfully submit that even if one skilled in the art is motivated to combine the references of Hayashi, Sumida, Tomalia and Nelson, the combination of Hayashi,

---

<sup>1</sup> See In re Ehrreich 590 F2d 902, 200 USPQ 504 (CCPA, 1979) (stating that patentability must be addressed "in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art," and that one "must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately.")

Sumida, Tomalia and Nelson would still not teach or suggest the features of amended independent claims 1, 4, 8 and 10.

The Applicants maintain, therefore, that the Action does not present the required “convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references,” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), and that this rejection may not be properly maintained absent such reasoning.

The Applicants, therefore, respectfully request that the rejection to Claims 1, 4, 8, and 10 under 35 U.S.C. § 103(a) be withdrawn.

Claims 3, 5-7, 9, and 11-25, dependent on independent claims 1, 4, 8, and 10, are patentable for the reasons stated above with respect to claims 1, 4, 8, and 10 as well as for their own merits.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection to independent claims 1, 4, 8, and 10 and all claims dependent thereon.

Furthermore, newly-added claim 26 is also allowable over Hayashi in view of Sumida and Tomalia, at least by virtue of its dependency on independent claim 4.

### **Double Patenting**

Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 10/526,938 in view of Nelson et al. (US 6,756,345 B2).

Applicants respectfully submit that the composition of Nelson does not render obvious the linker compound of amended independent claims 1, 4, 8, and 10.

In addition, Applicants cannot remedy this rejection at this time and request that this provisional rejection be held in abeyance. This is because neither co-pending application has matured into a patent. Should all outstanding issues in the present application be resolved save for the double-patenting rejection, and should neither co-pending application have by such time matured into a patent, then the Examiner should allow the instant application and thus any provisional double patenting rejection should attach to the above-noted co-pending application.

The Applicants, therefore, respectfully request that the rejection to Claims 1-25 as to nonstatutory obviousness-type double patenting be withdrawn.

### **CONCLUSION**

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a one (1) month extension of time for filing a reply to the outstanding Office Action and submit the required \$120.00 extension fee herewith.

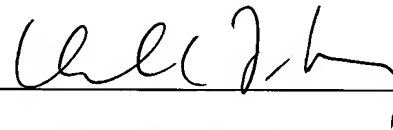
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Erin G. Hoffman, Reg. No. 57,752, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By

A handwritten signature in black ink, appearing to read "Donald J. Daley", is written over a horizontal line.

Donald J. Daley, Reg. No. 34,313  
P.O. Box 8910  
Reston, Virginia 20195  
(703) 668-8000

DJD/EGH:ald